

SEQUENCE LISTING

<110> Proteome Systems Intellectual Property Pty Ltd
5 <120> Method of isolating a protein
<130> 502469/PXM
10 <160> 26
<170> PatentIn version 3.1
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35 Glu Leu Thr Asn Leu Leu Gly Asn Ser Glu Thr Thr Leu Ala Leu Arg
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40 Asn Glu Glu Ser Ala Thr Ala Asp Leu Thr Ala Ala Ala Val Ala Asp
65 70 75 80
45 Thr Val Ala Ala Ala Ala Glu Asn Ala Gly Ala Ala Ala Trp Glu
85 90 95
50 Ala Ala Ala Ala Ala Asp Ala Leu Ala Lys Ala Lys Ala Asp Ala Leu
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55 Lys Glu Phe Asn Lys Tyr Gly Val Ser Asp Tyr Tyr Lys Asn Leu Ile
115 120 125
60 Asn Asn Ala Lys Thr Val Glu Gly Val Lys Asp Leu Gln Ala Gln Val
130 135 140
55 Val Glu Ser Ala Lys Lys Ala Arg Ile Ser Glu Ala Thr Asp Gly Leu
145 150 155 160
60 Ser Asp Phe Leu Lys Ser Gln Thr Pro Ala Glu Asp Thr Val Lys Ser
165 170 175
Ile Glu Leu Ala Glu Ala Lys Val Leu Ala Asn Arg Glu Leu Asp Lys

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| | 195 | 200 | 205 |
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| | Lys Ala Arg Ile Ser Glu Ala Thr Asp Gly Leu Ser Asp Phe Leu Lys | | |
| | 225 | 230 | 235 |
| 15 | Ser Gln Thr Pro Ala Glu Asp Thr Val Lys Ser Ile Glu Leu Ala Glu | | |
| | 245 | 250 | 255 |
| 20 | Ala Lys Val Leu Ala Asn Arg Glu Leu Asp Lys Tyr Gly Val Ser Asp | | |
| | 260 | 265 | 270 |
| 25 | Tyr Tyr Lys Asn Leu Ile Asn Asn Ala Lys Thr Val Glu Gly Val Lys | | |
| | 275 | 280 | 285 |
| 30 | Ala Leu Ile Asp Glu Ile Leu Ala Ala Leu Pro Lys Thr Asp Thr Tyr | | |
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| | Lys Leu Ile Leu Asn Gly Lys Thr Leu Lys Gly Glu Thr Thr Thr Glu | | |
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| 35 | 320 | | |
| | Ala Val Asp Ala Ala Thr Ala Glu Lys Val Phe Lys Gln Tyr Ala Asn | | |
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| 40 | Asp Asn Gly Val Asp Gly Glu Trp Thr Tyr Asp Asp Ala Thr Lys Thr | | |
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| 45 | Phe Thr Val Thr Glu Lys Pro Glu Val Ile Asp Ala Ser Glu Leu Thr | | |
| | 355 | 360 | 365 |
| 50 | Pro Ala Val Thr Thr Tyr Lys Leu Val Ile Asn Gly Lys Thr Leu Lys | | |
| | 370 | 375 | 380 |
| | Gly Glu Thr Thr Thr Glu Ala Val Asp Ala Ala Thr Ala Glu Lys Val | | |
| | 385 | 390 | 395 |
| 55 | 400 | | |
| | Phe Lys Gln Tyr Ala Asn Asp Asn Gly Val Asp Gly Glu Trp Thr Tyr | | |
| | 405 | 410 | 415 |
| 60 | Asp Asp Ala Thr Lys Thr Phe Thr Val Thr Glu Lys Pro Glu Val Ile | | |
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5 Asn Gly Lys Thr Leu Lys Gly Glu Thr Thr Thr Lys Ala Val Asp Ala
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10 Glu Thr Ala Glu Lys Ala Phe Lys Gln Tyr Ala Asn Asp Asn Gly Val
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15 Glu Met Val Thr Glu Val Pro Gly Asp Ala Pro Thr Glu Pro Glu Lys
 500 505 510

20 Pro Glu Ala Ser Ile Pro Leu Val Pro Leu Thr Pro Ala Thr Pro Ile
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25 Ala Lys Asp Asp Ala Lys Lys Asp Asp Thr Lys Lys Glu Asp Ala Lys
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30 Lys Pro Glu Ala Lys Lys Glu Asp Ala Lys Lys Ala Glu Thr Leu Pro
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60 Leu Gly Thr Leu Leu Ile Ser Gly Gly Val Thr Pro Ala Ala Asn Ala
 35 40 45

60 Ala Gln His Asp Glu Ala Gln Gln Asn Ala Phe Tyr Gln Val Leu Asn
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5 Met Pro Asn Leu Asn Ala Asp Gln Arg Asn Gly Phe Ile Gln Ser Leu
 65 70 75 80
 Lys Asp Asp Pro Ser Gln Ser Ala Asn Val Leu Gly Glu Ala Gln Lys
 85 90 95
 10 Leu Asn Asp Ser Gln Ala Pro Lys Ala Asp Ala Gln Gln Asn Lys Phe
 100 105 110
 15 Asn Lys Asp Gln Gln Ser Ala Phe Tyr Glu Ile Leu Asn Met Pro Asn
 115 120 125
 20 Leu Asn Glu Glu Gln Arg Asn Gly Phe Ile Gln Ser Leu Lys Asp Asp
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 30 Ala Phe Tyr Glu Ile Leu Asn Met Pro Asn Leu Asn Glu Glu Gln Arg
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 35 Asn Gly Phe Ile Gln Ser Leu Lys Asp Asp Pro Ser Gln Ser Ala Asn
 195 200 205
 40 Leu Leu Ala Glu Ala Lys Lys Leu Asn Asp Ala Gln Ala Pro Lys Ala
 210 215 220
 Asp Asn Lys Phe Asn Lys Glu Gln Gln Asn Ala Phe Tyr Glu Ile Leu
 225 230 235 240
 45 His Leu Pro Asn Leu Thr Glu Glu Gln Arg Asn Gly Phe Ile Gln Ser
 245 250 255
 50 Leu Lys Asp Asp Pro Ser Val Ser Lys Glu Ile Leu Ala Glu Ala Lys
 260 265 270
 55 Lys Leu Asn Asp Ala Gln Ala Pro Lys Glu Glu Asp Asn Asn Lys Pro
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 60 Gly Lys Glu Asp Asn Asn Lys Pro Gly Lys Glu Asp Gly Asn Lys Pro
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 305 310 315 320

Gly Lys Glu Asp Asn Lys Lys Pro Gly Lys Glu Asp Gly Asn Lys Pro
 5 325 330 335
 Gly Lys Glu Asp Gly Asn Lys Pro Gly Lys Glu Asp Gly Asn Lys Pro
 10 340 345 350
 Gly Lys Glu Asp Gly Asn Gly Val His Val Val Lys Pro Gly Asp Thr
 355 360 365
 15 Val Asn Asp Ile Ala Lys Ala Asn Gly Thr Thr Ala Asp Lys Ile Ala
 370 375 380
 20 Val Asp Asn Lys Leu Ala Asp Lys Asn Met Ile Lys Pro Gly Gln Glu
 385 390 395 400
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 25 405 410 415
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 35 40 45
 Asp Gly Ser Glu Asn Pro Met Ala Lys Tyr Pro Asp Phe Asp Asp Glu
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5 Asn Lys Glu Glu Thr Pro Glu Thr Pro Glu Thr Asp Ser Glu Glu Glu
 100 105 110

10 Val Thr Ile Lys Ala Asn Leu Ile Phe Ala Asn Gly Ser Thr Gln Thr
 115 120 125

15 Ala Glu Phe Lys Gly Thr Phe Glu Lys Ala Thr Ser Glu Ala Tyr Ala
 130 135 140

20 Tyr Ala Asp Thr Leu Lys Lys Asp Asn Gly Glu Tyr Thr Val Asp Val
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25 Ala Asp Lys Gly Tyr Thr Leu Asn Ile Lys Phe Ala Gly Lys Glu Lys
 165 170 175

30 Thr Pro Glu Glu Pro Lys Glu Glu Val Thr Ile Lys Ala Asn Leu Ile
 180 185 190

35 Tyr Ala Asp Gly Lys Thr Gln Thr Ala Glu Phe Lys Gly Thr Phe Glu
 195 200 205

40 Glu Ala Thr Ala Glu Ala Tyr Arg Tyr Ala Asp Ala Leu Lys Lys Asp
 210 215 220

45 Asn Gly Glu Tyr Thr Val Asp Val Ala Asp Lys Gly Tyr Thr Leu Asn
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Ile Lys Phe Ala Gly Lys Glu Lys Thr Pro Glu Glu Pro Lys Glu Glu
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50 Val Thr Ile Lys Ala Asn Leu Ile Tyr Ala Asp Gly Lys Thr Gln Thr
 260 265 270

55 Ala Glu Phe Lys Gly Thr Phe Glu Glu Ala Thr Ala Glu Ala Tyr Arg
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60 Tyr Ala Asp Leu Leu Ala Lys Glu Asn Gly Lys Tyr Thr Val Asp Val
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Ala Asp Lys Gly Tyr Thr Leu Asn Ile Lys Phe Ala Gly Lys Glu Lys
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Thr Pro Glu Glu Pro Lys Glu Glu Val Thr Ile Lys Ala Asn Leu Ile
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Tyr Ala Asp Gly Lys Thr Gln Thr Ala Glu Phe Lys Gly Thr Phe Ala
 340 345 350
 5 Glu Ala Thr Ala Glu Ala Tyr Arg Tyr Ala Asp Leu Leu Ala Lys Glu
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 15 Ile Arg Phe Ala Gly Lys Lys Val Asp Glu Lys Pro Glu Glu Lys Glu
 385 390 395 400
 Gln Val Thr Ile Lys Glu Asn Ile Tyr Phe Glu Asp Gly Thr Val Gln
 20 405 410 415
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 420 425 430
 25 Arg Tyr Ala Asp Leu Leu Ser Lys Glu His Gly Lys Tyr Thr Ala Asp
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 30 Leu Glu Asp Gly Gly Tyr Thr Ile Asn Ile Arg Phe Ala Gly Lys Glu
 450 455 460
 35 Glu Pro Glu Glu Thr Pro Glu Lys Pro Glu Val Gln Asp Gly Tyr Ala
 465 470 475 480
 Ser Tyr Glu Glu Ala Glu Ala Ala Lys Glu Ala Leu Lys Asn Asp
 40 485 490 495
 Asp Val Asn Lys Ser Tyr Thr Ile Arg Gln Gly Ala Asp Gly Arg Tyr
 500 505 510
 45 Tyr Tyr Val Leu Ser Pro Val Glu Ala Glu Glu Lys Pro Glu Ala
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 50 Gln Asn Gly Tyr Ala Thr Tyr Glu Glu Ala Glu Ala Ala Lys Lys
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 Ala Asp Gly Arg Tyr Tyr Val Leu Ser Pro Val Glu Ala Glu Thr
 60 565 570 575
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Ser Asn Pro Ser Asn Pro Ser Thr Pro Asp Val Pro Ser Thr Pro Asp
 595 600 605

5 Val Pro Ser Asn Pro Ser Thr Pro Glu Val Pro Ser Asn Pro Ser Thr
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10 Pro Gly Asn Glu Glu Lys Pro Gly Asn Glu Gln Lys Pro Gly Asn Glu
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15 Gln Lys Pro Gly Asn Glu Gln Lys Pro Gly Asn Glu Gln Lys Pro Gly
 645 650 655

20 Asn Glu Gln Lys Pro Asp Gln Pro Ser Lys Pro Glu Lys Glu Glu Asn
 660 665 670

25 Gly Lys Gly Gly Val Asp Ser Pro Lys Lys Glu Lys Ala Ala Leu
 675 680 685

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Phe Arg

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<211> 15

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<213> fragment of *M. tuberculosis* glutamine synthetase .

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<210> 10

<211> 19

<212> PRT

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55 Leu Val Arg

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<211> 15

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15 Leu Val Ala Ala Gly Asp Val Asp Thr Val Ile Val Ala Phe Thr Asp
20 25 30

20 Met Gln Gly Arg Leu Ala Gly Lys Arg Ile Ser Gly Arg His Phe Val
35 40 45

25 Asp Asp Ile Ala Thr Arg Gly Val Glu Cys Cys Ser Tyr Leu Leu Ala
50 55 60

30 Val Asp Val Asp Leu Asn Thr Val Pro Gly Tyr Ala Met Ala Ser Trp
65 70 75 80

35 Asp Thr Gly Tyr Gly Asp Met Val Met Thr Pro Asp Leu Ser Thr Leu
85 90 95

40 Arg Leu Ile Pro Trp Leu Pro Gly Thr Ala Leu Val Ile Ala Asp Leu
100 105 110

45 Val Trp Ala Asp Gly Ser Glu Val Ala Val Ser Pro Arg Ser Ile Leu
115 120 125

50 Arg Arg Gln Leu Asp Arg Leu Lys Ala Arg Gly Leu Val Ala Asp Val
130 135 140

55 Ala Thr Glu Leu Glu Phe Ile Val Phe Asp Gln Pro Tyr Arg Gln Ala
145 150 155 160

60 Trp Ala Ser Gly Tyr Arg Gly Leu Thr Pro Ala Ser Asp Tyr Asn Ile
165 170 175

65 Asp Tyr Ala Ile Leu Ala Ser Ser Arg Met Glu Pro Leu Leu Arg Asp
180 185 190

70 Ile Arg Leu Gly Met Ala Gly Ala Gly Leu Arg Phe Glu Ala Val Lys
195 200 205

Gly Glu Cys Asn Met Gly Gln Gln Glu Ile Gly Phe Arg Tyr Asp Glu
210 215 220

5 Ala Leu Val Thr Cys Asp Asn His Ala Ile Tyr Lys Asn Gly Ala Lys
225 230 235 240

10 Glu Ile Ala Asp Gln His Gly Lys Ser Leu Thr Phe Met Ala Lys Tyr
245 250 255

Asp Glu Arg Glu Gly Asn Ser Cys His Ile His Val Ser Leu Arg Gly
15 260 265 270

Thr Asp Gly Ser Ala Val Phe Ala Asp Ser Asn Gly Pro His Gly Met
275 280 285

20 Ser Ser Met Phe Arg Ser Phe Val Ala Gly Gln Leu Ala Thr Leu Arg
290 295 300

25 Glu Phe Thr Leu Cys Tyr Ala Pro Thr Ile Asn Ser Tyr Lys Arg Phe
305 310 315 320

30 Ala Asp Ser Ser Phe Ala Pro Thr Ala Leu Ala Trp Gly Leu Asp Asn
325 330 335

35 Arg Thr Cys Ala Leu Arg Val Val Gly His Gly Gln Asn Ile Arg Val
340 345 350

40 Glu Cys Arg Val Pro Gly Gly Asp Val Asn Gln Tyr Leu Ala Val Ala
355 360 365

45 Ala Leu Ile Ala Gly Gly Leu Tyr Gly Ile Glu Arg Gly Leu Gln Leu
370 375 380

50 Pro Glu Pro Cys Val Gly Asn Ala Tyr Gln Gly Ala Asp Val Glu Arg
385 390 395 400

Leu Pro Val Thr Leu Ala Asp Ala Ala Val Leu Phe Glu Asp Ser Ala
50 405 410 415

55 Leu Val Arg Glu Ala Phe Gly Glu Asp Val Val Ala His Tyr Leu Asn
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Glu Arg Ile Arg Gly Phe Glu Arg Leu
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 Thr Ile Gly His Val Asp His Gly Lys Thr Thr Leu Thr Ala Ala Ile 96
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 20 acc aag gtc ctg cac gac aaa ttc ccc gat ctg aac gag acg aag gca
 Thr Lys Val Leu His Asp Lys Phe Pro Asp Leu Asn Glu Thr Lys Ala 144
 35 40 45
 25 ttc gac cag atc gac aac gcc ccc gag gag cgt cag cgc ggt atc acc
 Phe Asp Gln Ile Asp Asn Ala Pro Glu Glu Arg Gln Arg Gly Ile Thr 192
 50 55 60
 30 atc aac atc gcg cac gtg gag tac cag acc gac aag cgg cac tac gca
 Ile Asn Ile Ala His Val Glu Tyr Gln Thr Asp Lys Arg His Tyr Ala 240
 65 70 75 80
 35 cac gtc gac gcc cct ggc cac gcc gac tac atc aag aac atg atc acc
 His Val Asp Ala Pro Gly His Ala Asp Tyr Ile Lys Asn Met Ile Thr 288
 85 90 95
 40 ggc gcc gcg cag atg gac ggt gcg atc ctg gtc gcc gcc acc gac
 Gly Ala Ala Gln Met Asp Gly Ala Ile Leu Val Val Ala Ala Thr Asp 336
 100 105 110
 45 ggc ccg atg ccc cag acc cgc gag cac gtt ctg ctg gcg cgt caa gtc
 Gly Pro Met Pro Gln Thr Arg Glu His Val Leu Leu Ala Arg Gln Val 384
 115 120 125
 50 ggt gtg ccc tac atc ctg gta gcg ctg aac aag gcc gac gca gtg gac
 Gly Val Pro Tyr Ile Leu Val Ala Leu Asn Lys Ala Asp Ala Val Asp 432
 130 135 140
 55 gac gag gag ctg ctc gaa ctc gtc gag atg gag gtc cgc gag ctg ctg
 Asp Glu Glu Leu Leu Glu Leu Val Glu Met Glu Val Arg Glu Leu Leu 480
 145 150 155 160
 60 gct gcc cag gaa ttc gac gag gac gcc ccg gtt gtg cgg gtc tcg gcg
 Ala Ala Gln Glu Phe Asp Glu Asp Ala Pro Val Val Arg Val Ser Ala 528
 165 170 175
 65 ctc aag gcg ctc gag ggt gac gcg aag tgg gtt gcc tct gtc gag gaa
 Leu Lys Ala Leu Glu Gly Asp Ala Lys Trp Val Ala Ser Val Glu Glu 576
 180 185 190
 70 ctg atg aac gcg gtc gac gag tcg att ccg gac ccg gtc cgc gag acc
 Leu Met Asn Ala Val Asp Glu Ser Ile Pro Asp Pro Val Arg Glu Thr 624
 195 200 205
 75 gac aag ccg ttc ctg atg ccg gtc gag gac gtc ttc acc att acc ggc
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| | | | |
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| 5 cgc gga acc gtc acc gga cgt gtc gag cgc ggc gtc atc aac gtc | | | 720 |
| Arg Gly Thr Val Val Thr Gly Arg Val Glu Arg Gly Val Ile Asn Val | | | |
| 225 | 230 | 235 | 240 |
| 10 aac gag gaa gtt gag atc gtc ggc att cgc cca tcg acc acc aag acc | | | 768 |
| Asn Glu Glu Val Glu Ile Val Gly Ile Arg Pro Ser Thr Thr Lys Thr | | | |
| 245 | 250 | 255 | |
| 15 acc gtc acc ggt gtc gag atg ttc cgc aag ctg ctc gac cag ggc cag | | | 816 |
| Thr Val Thr Gly Val Glu Met Phe Arg Lys Leu Leu Asp Gln Gly Gln | | | |
| 260 | 265 | 270 | |
| 20 gcg ggc gac aac gtt ggt ttg ctg ctg cgg ggc gtc aag cgc gag gac | | | 864 |
| Ala Gly Asp Asn Val Gly Leu Leu Leu Arg Gly Val Lys Arg Glu Asp | | | |
| 275 | 280 | 285 | |
| 25 gtc gag cgt ggc cag gtt gtc acc aag ccc ggc acc acc acg ccg cac | | | 912 |
| Val Glu Arg Gly Gln Val Val Thr Lys Pro Gly Thr Thr Thr Pro His | | | |
| 290 | 295 | 300 | |
| 30 acc gag ttc gaa ggc cag gtc tac atc ctg tcc aag gac gag ggc ggc | | | 960 |
| Thr Glu Phe Glu Gly Gln Val Tyr Ile Leu Ser Lys Asp Glu Gly Gly | | | |
| 305 | 310 | 315 | 320 |
| 35 cgg cac acg ccg ttc ttc aac aac tac cgt ccg cag ttc tac ttc ccg | | | 1008 |
| Arg His Thr Pro Phe Phe Asn Asn Tyr Arg Pro Gln Phe Tyr Phe Arg | | | |
| 325 | 330 | 335 | |
| 40 acc acc gac gtg acc ggt gtg aca ctg ccg gag ggc acc gag atg | | | 1056 |
| Thr Thr Asp Val Thr Gly Val Val Thr Leu Pro Glu Gly Thr Glu Met | | | |
| 340 | 345 | 350 | |
| 45 gtg atg ccc ggt gac aac acc aac atc tcg gtg aag ttg atc cag ccc | | | 1104 |
| Val Met Pro Gly Asp Asn Thr Asn Ile Ser Val Lys Leu Ile Gln Pro | | | |
| 355 | 360 | 365 | |
| 50 gtc gcc atg gac gaa ggt ctg cgt ttc gcg atc cgc gag ggt ggc cgc | | | 1152 |
| Val Ala Met Asp Glu Gly Leu Arg Phe Ala Ile Arg Glu Gly Gly Arg | | | |
| 370 | 375 | 380 | |
| 55 acc gtg ggc gcc ggc ccg gtc acc aag atc atc aag tag | | | 1191 |
| Thr Val Gly Ala Gly Arg Val Thr Lys Ile Ile Lys | | | |
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| 60 Thr Ile Gly His Val Asp His Gly Lys Thr Thr Leu Thr Ala Ala Ile | | | |
| 20 25 30 | | | |
| Thr Lys Val Leu His Asp Lys Phe Pro Asp Leu Asn Glu Thr Lys Ala | | | |

| | | | |
|----|---|-----|-----|
| | 35 | 40 | 45 |
| 5 | Phe Asp Gln Ile Asp Asn Ala Pro Glu Glu Arg Gln Arg Gly Ile Thr | | |
| | 50 | 55 | 60 |
| 10 | Ile Asn Ile Ala His Val Glu Tyr Gln Thr Asp Lys Arg His Tyr Ala | | |
| | 65 | 70 | 75 |
| | His Val Asp Ala Pro Gly His Ala Asp Tyr Ile Lys Asn Met Ile Thr | | |
| | 85 | 90 | 95 |
| 15 | Gly Ala Ala Gln Met Asp Gly Ala Ile Leu Val Val Ala Ala Thr Asp | | |
| | 100 | 105 | 110 |
| 20 | Gly Pro Met Pro Gln Thr Arg Glu His Val Leu Leu Ala Arg Gln Val | | |
| | 115 | 120 | 125 |
| 25 | Gly Val Pro Tyr Ile Leu Val Ala Leu Asn Lys Ala Asp Ala Val Asp | | |
| | 130 | 135 | 140 |
| 30 | Asp Glu Glu Leu Leu Glu Leu Val Glu Met Glu Val Arg Glu Leu Leu | | |
| | 145 | 150 | 155 |
| | Ala Ala Gln Glu Phe Asp Glu Asp Ala Pro Val Val Arg Val Ser Ala | | |
| | 165 | 170 | 175 |
| 35 | Leu Lys Ala Leu Glu Gly Asp Ala Lys Trp Val Ala Ser Val Glu Glu | | |
| | 180 | 185 | 190 |
| 40 | Leu Met Asn Ala Val Asp Glu Ser Ile Pro Asp Pro Val Arg Glu Thr | | |
| | 195 | 200 | 205 |
| 45 | Asp Lys Pro Phe Leu Met Pro Val Glu Asp Val Phe Thr Ile Thr Gly | | |
| | 210 | 215 | 220 |
| 50 | Arg Gly Thr Val Val Thr Gly Arg Val Glu Arg Gly Val Ile Asn Val | | |
| | 225 | 230 | 235 |
| | Asn Glu Glu Val Glu Ile Val Gly Ile Arg Pro Ser Thr Thr Lys Thr | | |
| | 245 | 250 | 255 |
| 55 | Thr Val Thr Gly Val Glu Met Phe Arg Lys Leu Leu Asp Gln Gly Gln | | |
| | 260 | 265 | 270 |
| 60 | Ala Gly Asp Asn Val Gly Leu Leu Leu Arg Gly Val Lys Arg Glu Asp | | |
| | 275 | 280 | 285 |
| | Val Glu Arg Gly Gln Val Val Thr Lys Pro Gly Thr Thr Pro His | | |

15

290

295

300

5 Thr Glu Phe Glu Gly Gln Val Tyr Ile Leu Ser Lys Asp Glu Gly Gly
305 310 315 320

10 Arg His Thr Pro Phe Phe Asn Asn Tyr Arg Pro Gln Phe Tyr Phe Arg
325 330 335

15 Thr Thr Asp Val Thr Gly Val Val Thr Leu Pro Glu Gly Thr Glu Met
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20 Val Met Pro Gly Asp Asn Thr Asn Ile Ser Val Lys Leu Ile Gln Pro
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25 Val Ala Met Asp Glu Gly Leu Arg Phe Ala Ile Arg Glu Gly Gly Arg
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30 <210> 15
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<400> 15

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40 Arg

45 <210> 16
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1 5

55 <210> 17
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15 <210> 19
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20 Met Lys Leu Arg Pro Leu His Asp Arg
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25 <210> 20
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45 <210> 22
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Arg

5

10 <210> 24
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15 Val Gly Asp Lys Val Val Phe Gly Pro Tyr Ser Gly Ser Asn Ala Ile
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Lys

20

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30 Met Lys Leu Arg Pro Leu His Asp Arg Val Val Ile Arg Arg Ser Glu
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35 Glu Glu Thr Lys Thr Ala Gly Gly Ile Val Leu Pro Gly Ser Ala Ala
20 25 30

40 Glu Lys Pro Asn Arg Gly Glu Val Val Ala Val Gly Thr Gly Arg Val
35 40 45

45 Leu Asp Asn Gly Glu Val Arg Ala Leu Ala Val Lys Val Gly Asp Lys
50 55 60

45 Val Val Phe Gly Pro Tyr Ser Gly Ser Asn Ala Ile Lys Val Asp Gly
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50 Glu Glu Leu Leu Val Met Gly Glu Ser Glu Ile Leu Ala Val Leu Glu
85 90 95

Asp

55

60 <210> 26
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<400> 26

Met Thr Cys Lys Met Ser Gln Leu Glu Arg Asn Ile Glu Thr Ile Ile

18

1 5 10 15

5 Asn Thr Phe His Gln Tyr Ser Val Lys Leu Gly His Pro Asp Thr Leu
 20 25 30

10 Asn Gln Gly Glu Phe Lys Glu Leu Val Arg Lys Asp Leu Gln Asn Phe
 35 40 45

15 Leu Lys Lys Glu Asn Lys Asn Glu Lys Val Ile Glu His Ile Met Glu
 50 55 60

20 Asp Leu Asp Thr Asn Ala Asp Lys Gln Leu Ser Phe Glu Glu Phe Ile
 65 70 75 80

25 Met Leu Met Ala Arg Leu Thr Trp Ala Ser His Glu Lys Met His Glu
 85 90 95

30 Gly Asp Glu Gly Pro Gly His His His Lys Pro Gly Leu Gly Glu Gly
 100 105 110

 Thr Pro

30